GC×GC-TOFMS: A tool to demystify…

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Comprehensive two-dimensional gas chromatography (GC×GC), especially when coupled to time-of-flight mass spectrometry (TOFMS), is one of the most powerful Separation Science tool when considering separation and characterization of volatile and semi-volatile compounds. Despite the fact that GC×GC-TOFMS has reached maturity, its apparent complexity however still tend to refrain from its use in routine applications. This presentation will reconsider some of the historical and major development aspects of GC×GC, in terms of principle of signal modulation and coupling to MS. Practical examples of applications will be described and investigated in terms of data production and processing to illustrate the added value of the technique over classical 1D approaches for the study of complex mixtures of analytes.